Aquatic Rare Plant Survey Report

Lassen Volcanic National Park
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SUMMARY

Seven wetland sites were surveyed from 8/20/03 to 9/3/03: Lake 508, Lake 632, Lake 650, Lake 674, Horseshoe Lake, Twin Meadows, and Grassy Swale. No target species were found at any of these sites. A bur-reed (*Sparganium sp.)* was found at Lake 632, but was not yet flowering. A bur-reed population at Horseshoe Lake was determined to be *S. angustifolium,* not the listed *S. natans*. Additionally, *Sisyrinchium elmeri,* a species not previously recorded in the park, was found at Grassy Swale. A table of species found at each location is attached.

TARGET SPECIES

The surveys targeted these CNPS-listed aquatic plants:

Carex lasiocarpa
Carex limosa
Drosera anglica
Lycopus uniflorus
Marsilea oligospora
Potamogeton praelongus
Rhynchospora alba
Scheuchzeria palustris ssp. americana
Scirpus subterminalis
Sparganium natans

SURVEY RESULTS

Lake 650 (Glen Pond 3) 8/20/03

The vegetation is mostly restricted to the immediate lakeshore, except for *Potamogeton gramineus*. The dominant species were *Carex angustata* and *C. vesicaria.*

Lake 632 (Glen Lake) 8/20/03

The dominant shoreline species were *Carex angustata*, *C. vesicaria*, and *C. lenticularis*. An unknown species of *Sparganium* was found on the southern and western mudflats along the shore. It was not possible to identify the species because the plants were not in reproductive condition. The Flora of Lassen Volcanic National Park (Gillett et al. 1995) mentions that some *Sparganium* plants may not reproduce every year. A revisit in 2-3 weeks might clarify.

Lake 674 8/20/03

This pond is partially separated from Juniper lake by a rock wall. The transition to a wet meadow hosted mainly *C. angustata* and *C. utriculata*. No target species were found here.

Twin Meadows **8/26/03**

The best potential habitat in this area, a vegetated meadow with standing water, is located at the southern end of the northern meadow: UTM 629597E, 4476758N[1]. However, only relatively common aquatic species such as *Carex utriculata, C. simulata, and Scirpus congdonii* were found there. The northern end of the meadow area encompasses seeps in which a high diversity of plants but no target species were found.

Horseshoe Lake **8/27/03 & 8/29/03**

Eastern meadow

There is a small area of vegetated standing water directly adjacent to the east side of the lake in which no target species were found. Here, dominant species included *Carex angustata* and *C. utriculata*.

Western meadows

The northwestern and southwestern fingers of the lake both have mudflats and a transition to wet meadows, though the southwestern finger has the best potential habitat for rare aquatic plants. The vegetation of these mudflats were dominated by *Nuphar luteum ssp. polysepalum, Potamogeton gramineus,* and *Polygonum amphibium*. *Sparganium angustifolium* was found growing in the deep channel of the southwestern inlet and the mudflat into which the meadow drained. However, no *S. natans* or any other target species were found.

Lake 508 (Inspiration Pond 2) **8/29/03**

This lake has a high potential for hosting target species. Most of the wetland has standing water vegetated with indicator species such as *Menyanthes trifoliata*, and *Utricularia vulgaris*. There are a few segments of raised peat from 1-5m^2, and 0.5m tall with *Kalmia polifolia ssp. microphylla* and *Tofieldia occidentalis* growing on them, possibly part of a relic bog. However, no target species were found.

Grassy Swale **9/3/03**

Though the Flora of Lassen Volcanic National Park (Gillett et al. 1995) lists specimens of aquatic indicators *Menyanthes trifoliata* and *Drosera rotundifolia*, this survey did not find those species or any target species. Most of the areas surveyed were seeps underneath lodgepole pine forest and small vernal pools dominated by *C. vesicaria*. It is possible that potential aquatic habitat exists further upstream to the northeast, as this survey stopped at UTM 637323E, 4481545N. A population of *Sisyrinchium elmeri* was found in an open seep at UTM 635840E, 4480711N, though this species had not been previously recorded in the park (Gillett et al. 1995).

REFERENCES

Gillett, et al. 1995. A Flora of Lassen Volcanic National Park, California. California Native Plant Society: Sacramento, CA.

[1] UTM coordinates are given in the projection NAD27 Zone 10N (Western US)